

BEFORE THE INDEPENDENT HEARING COMMISSIONERS

IN THE MATTER of the Resource Management Act 1991 ('the Act')

AND

IN THE MATTER of the Proposed Canterbury Land and Water Regional Plan

BETWEEN **RAYONIER NEW ZEALAND LTD**
Submitter

A N D **CANTERBURY REGIONAL COUNCIL**
Local Authority

EVIDENCE OF NICK BOYES ON BEHALF OF RAYONIER NEW ZEALAND LIMITED

INTRODUCTION

- 1 My name is Nicholas (Nick) Brian Boyes.
- 2 I am a Senior Planner at Planz Consultants Ltd; a planning and resource management consulting company with offices in Christchurch and Auckland. I hold a Bachelor of Science (majoring in Plant and Microbial Science and Geography) from the University of Canterbury (1997) and a Master of Science (Resource Management) (Honours) from Lincoln University (1999). I have worked in the field of planning/resource management since 1999, the last 12 years as a planning consultant. I am an accredited Hearings Commissioner.
- 3 Much of my work experience relates to the preparation and processing of resource consent applications in the rural area (subdivision and land use). I was employed as Resource Management Planner by the Selwyn District Council from 1999 to 2001; and subsequently as a consultant, including undertaking the role of Acting Senior Regulatory Planner and processing the Notices of Requirement and Land Use consents associated with the Central Plains Water Irrigation Scheme. I have previously prepared land use consent applications for major forestry proposals in the Banks Peninsula, Hurunui and Waimate Districts. Two of these projects involved obtaining resource consent from Environment Canterbury for forestry within a flow sensitive catchment under the rules contained in the NRRP. I was also more recently engaged by the Otago Forestry Group (which included Rayonier NZ Ltd as well as other forestry interests) to present evidence in relation to proposed Plan Change 6A ("PC6A") to the Otago Regional Policy Statement. Many of the issues at that hearing are similar to those in relation to this Proposed Land and Water Regional Plan ("pLWRP") hearing.
- 4 I have read the Environment Court's Code of Conduct and agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this statement of evidence are within my area of expertise.
- 5 The data, information, facts and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. I have not omitted to consider material facts known to me that might alter or detract from the opinions I have expressed.

SCOPE OF EVIDENCE

- 6 In my evidence I address the following issues:
 - 6.1 Overview of relief sought
 - 6.2 Appropriateness of relying on Industry Codes of Practice
 - 6.3 Amendments sought to the Proposed Land and Water Regional Plan
 - 6.4 Objectives and Policies of the pLWRP
 - 6.5 The National Policy Statement for Freshwater Management (2011)

- 6.6 The Second Report of the Freshwater Management Forum
- 6.7 Part 2 of the Resource Management Act 1991
- 6.8 Conclusions

OVERVIEW OF RELIEF SOUGHT – PERMITTED ACTIVITY STATUS

- 7 In basic terms the submissions lodged by Rayonier NZ Ltd (“Rayonier”) seek to achieve amendments to the proposed Land and Water Regional Plan (“pLWRP”) to enable appropriate forestry activities to occur as a permitted activity. What I mean by ‘appropriate’ is forestry activity being undertaken in accordance with current industry Code of Practice. Of particular relevance to this hearing this includes earthworks, vegetation clearance, harvest and construction of crossings/culverts being undertaken in accordance with pre-prepared Erosion and Sediment Control Plans (“ECSP”), which also includes a separate Harvest Management Plan for that activity. As Mr Meredith points out *“a permitted activity framework that incorporates these documents also gives weight to ensure operators undertake good industry practice”* (paragraph 57).
- 8 Therefore, it is acknowledged that poor practice may well mean that some operators cannot meet the performance standards for a permitted activity, and will therefore require consent. Alternatively the proposed permitted activity rules and associated performance standards may provide the necessary incentive for such operations to be brought in-line with current industry standards and codes of practice.
- 9 The use of permitted activities with conditions, rather than requiring consents, places the responsibility for maintaining and monitoring discharge standards on the discharger - should they wish to be considered as a permitted activity. The operator may then take whatever measures are appropriate in order to comply. In addition, they are able to allocate funding towards practical improvements rather than to the regulatory cost of gaining resource consent. This is in line with the ambitions of Rayonier.
- 10 Rayonier has recently been involved in the Horizons One Plan submission process and subsequent Appeals and PC6A to the Otago Regional Policy Statement. Many of the issues now before the Canterbury Regional Council (“CRC”) regarding forestry activity were considered as part of those processes.
- 11 I have reviewed the Memorandum between the various Appellants and Manawatu-Wanganui Regional Council as Respondent. In my view the approach set out in this agreement provides an appropriate response to consideration of forestry activity. Forestry is subject to a specific rule in the Horizons One Plan whereby it is a permitted activity subject to being undertaken in accordance with Industry Codes of Practice. A copy of the Memorandum is attached as **Appendix 1** to my evidence.

- 12 The original submission lodged on behalf of Rayonier provided an alternative relief, being a separate rule for forestry along the lines of that included in the Horizons One Plan.
- 13 The pLWRP takes what is referred to in the supporting information as a “Mountains to the Sea” approach to water take, use and discharge management. I note that whilst individual land use ‘types’ are identified in the pLWRP, this is not in the context of any dispensation from rules, but rather providing additional rules that certain land uses must also comply with (such as the rules for ‘Farming’ being subject to the OVERSEER nutrient loss model).
- 14 Within this framework it may be difficult, given the general intent and philosophy of the pLWRP, to include specific rules applying to certain land uses, i.e., forestry, at the exclusion of all others (rules). However, that is not to say that such an approach could not be justified. The evidence of Dr Phillips and Dr Quinn indicates that there is planning merit in providing for forestry as a permitted activity given the significantly different effects profile of plantation forestry activity when compared to traditional land uses with greater cumulative effects over the temporal scale of a forestry rotation. In my view the more difficult issue is how to appropriately provide for forestry under the framework adopted by the pLWRP.
- 15 The conclusion from their analysis of the available scientific information suggests that the potential for unintended discouragement of forestry (and the consequential loss of ecosystem benefits forestry provides) would be avoided by adopting a permitted activity status for forestry subject to performance standards requiring adherence to the industry recognised codes of practice. This requires the preparation of Erosion and Sediment Control Management Plans (“ESCP”) and Harvest Plans as the primary tool and monitoring against water quality targets that are defined at appropriate spatial and temporal scales. This approach has recently been endorsed by the Environment Court with respect to the Horizons One Plan.
- 16 In my view this alternative approach is a far more effective and efficient than simply requiring the vast majority of forestry activity to go through a resource consent process. As Mr Meredith notes, the conditions on any such resource consent would generally require adherence to such codes in any case, so would be of little added value¹.
- 17 The remainder of my evidence considers the appropriateness of relying on Erosion and Sediment Control Plans and Codes of Practice to manage any actual or potential effects of forestry and then provides a detailed description of the amendments sought to the rules as notified or recommended by Officers.

RELIANCE ON EROSION SEDIMENT CONTROL PLANS & INDUSTRY CODES OF PRACTICE

- 18 The codes, manuals and guidelines referred to in the proposed rules are explained in detail in the evidence of Mr Meredith; and their effectiveness is outlined in

¹ Mr Meredith evidence, paragraph 22.

paragraphs 62 to 73 of Dr Phillips' evidence. I do not propose to repeat that information here. Copies of these documents can be made available should the Commissioners wish to peruse them in more detail.

- 19 Dr Phillips considers that what were once poor environmental practices are now less common, particularly in corporate forestry in New Zealand². Current modern engineering design and construction coupled with good forest planning and management practices following guidance in these documents (such as the NZ Forest Road Engineering Manual (2012)) have reduced the amount of sediment entering streams from roads and associated earthworks even in extreme rain events³.
- 20 The proposed rules place a reliance on foresters formulating and adhering to an ESCP and Harvest Plan prepared in accordance with industry good practice, and having regard to the sediment and control guidelines prepared by Environment Canterbury in 2007 in order to be a permitted activity.
- 21 In my view such a rule is appropriate and in accordance with section 70(2) of the RMA where it refers to the adoption of the best practicable option where this is the most efficient and effective means of preventing or minimising adverse effects on the environment. The concept of best practicable option is inherent in the Environmental Code of Practice for Plantation Forestry (2007). Furthermore, this concept is already acknowledged in the policy framework of the pLWRP, Objective 3.23 states:

All activities operate at "good practice" or better to protect the region's fresh water resources from quality and quantity degradation.

- 22 Dr Phillips notes that *"In following their codes of practice and engineering guidelines, the forestry sector in the rural environment has, in my view, provided the lead in terms of measures taken to manage and mitigate sediment. Many rural roads and farm tracks do not employ the same level of erosion and sediment control practices⁴".* Furthermore as the principle behind sediment control and thus avoidance of impacts arising from sediment is to control generation (erosion) in the first instance, Dr Phillips supports the proposed rule amendments relating to forestry being undertaken in accordance with an ESCP and Harvest Plan.

AMENDMENTS SOUGHT TO PROPOSED LAND & WATER REGIONAL PLAN

- 23 The relief sought was set out in the original submission lodged on behalf of Rayonier. A full description of the provisions as notified, the original relief sought, amendments recommended by Officers and any further changes now sought is set out in **Appendix 2** to my evidence.

² Dr Phillip's evidence, paragraphs 41 and 67.

³ Evidence of Dr Phillips, paragraph 67.

⁴ Evidence of Dr Phillips, paragraph 68.

Soil Stability Policy 4.19

- 24 As notified this policy stated that sedimentation should be 'prevented'. In the context of an activity for which obtaining resource consent is an option, i.e., it is not a prohibited activity, such a term is not considered appropriate.
- 25 I support the Officers recommendation (no. 476) that this term be deleted and replaced with "avoided or mitigation". This is also consistent with the Officers recommendation to alter the status of any non-compliance with the corresponding rules relating to sediment discharge (5.72A and 5.72B) from non-complying to discretionary (recommendation no. 210).

Stormwater Discharge Rule 5.72 (now 5.72A)

- 26 The concern expressed in the original submission related to the ability of forestry activity to comply with the concentration of total suspended solid standards included in condition 6.(b) of the rule (numbering as notified). The reasons for this are two-fold, the differing effects profile of forestry activity over both temporal and spatial scales when compared to other forms of rural land use; and the potential for background concentrations occurring naturally to exceed the standards set out in the rule regardless of any actions of forestry operators.
- 27 The relief sought was effectively recognition that in such circumstances compliance with the standards therein may not always be possible and therefore provided for a maximum 20% increase in background levels when background concentrations are already higher than the specified standards. In my view the Officers report (pages 190-195) does not adequately address the issue raised in the submission. I agree that where land disturbance is occurring erosion and sediment control measures should be implemented, and this is exactly the approach that Rayonier wish to see adopted through compliance with the Environmental Code of Practice for Plantation Forestry (2007) and preparation of Erosion and Sediment Control Plans and Harvest Plans.
- 28 The impacts of forestry activity on water clarity are addressed in detail in the evidence of Dr Quinn. This evidence confirms that as a land use forestry does not typically have adverse effects on water clarity, despite a period of increased sediment transport following harvest⁵. The evidence of Dr Quinn outlines the difficulty that forestry activity may have in complying with the standards set out in Schedule 5 (i.e., no more than 20-35% change in visual clarity, depending on the water body type) and with the suspended solids concentrations in condition (d) of Rule 5.72A during and immediately after harvesting, particularly in small streams⁶.
- 29 Dr Quinn also refers to the practical difficulties of sampling, assessing and monitoring suspended solid concentration ("SSC") as used in Rule 5.72⁷. In

⁵ Dr Quinn evidence, paragraphs 11 and 14.

⁶ Dr Quinn evidence, paragraphs 17 and 22.

⁷ Dr Quinn evidence, paragraphs 32 to 35.

recognition of the good quality outcomes resulting from production forestry, Dr Quinn has recommended various options for amending Rule 5.72/Rule 5.72A. These are set out in his evidence at paragraphs 26, 28, 31 and summarised at paragraph 35.

- 30 The potential rule amendments put forward are rather complex in terms of rule drafting, as they would have to:
- a) provide for an exception for forestry activity during the harvest phase (being during and immediately after harvest); and
 - b) recognise the different clarity standards recommended for small streams (described as less than 300ha catchments) and all other catchments; and
 - c) amend Schedule 5 so that it applies to forestry over the appropriate timescale (rolling 4-5 year median); and
 - d) convert SSC standards into clarity units or at least providing the option to assess compliance with the SSC standards by using relationships with visual clarity using a black disc or clarity tube.
- 31 The complexity of drafting such provisions in my view provides support for the approach of requiring the preparation of ESCP and implementation of good practice in accordance with industry ECOP to manage sediment and stormwater discharge from forestry activity. This is an option put forward by Dr Quinn, and includes compliance with the water clarity standards set out in Schedule 5 when flows are below the median:

The discharge of stormwater into a river, lake, wetland or artificial watercourse or onto or into land in circumstances where a contaminant may enter a river, lake or artificial watercourse ~~water~~ is a permitted activity provided the following conditions are met:

1. The discharge is into a community ~~or network utility operator~~¹⁹⁸ stormwater system or

*2. **The discharge results from plantation forestry activity, and***

(a) The activity is undertaken in accordance with an Erosion and Sediment Control Plan and Harvest Plan which must be submitted to the Regional Council upon request.

(b) For a discharge of stormwater to surface water the discharge does not, after reasonable mixing, breach the water clarity standards in Schedule 5 when flows in the receiving waters are below the median.

or

3. The discharge is not into a community stormwater system, and¹⁹⁹

...

Flow Sensitive Catchments (Rule 5.110)

- 32 The background regarding the promulgation of the suite of rules currently included in the Natural Resources Regional Plan ("NRRP") is specifically dealt with in the evidence of Dr Cowie. Dr Cowie outlines how the decisions made by the Commissioners who heard the various submitters (including Rayonier) have

effectively been overturned in favour of the position promoted by ECan Officers throughout that (NRRP) process.

- 33 As outlined in the original submission and the evidence of Mr Meredith, this means that Rayonier has to once again attend a hearing to prevent what Dr Cowie describes as a "*discredited regulatory approach*" being included within a regional planning document⁸.
- 34 I do not propose to repeat the criticisms Dr Cowie makes of the flow sensitive catchment rule framework included in the pLWRP as notified, except to say that based on that evidence I agree that the proposed rules are not effects based and appear to be more concerned with administrative simplicity. The net result is that forestry is discouraged within flow sensitive catchments when there may be no environmental reason for doing so.
- 35 The Officers recommendations introduce standards that relate to the area of catchment planted as opposed to each certificate of title. The other change recommended by Officers is that the activity status for such plantings change from permitted to controlled, with control retained over "*The provision of information on the location, density and timing of planting*".
- 36 In my view this change in activity status is not justified, the matter for control does not involve any assessment, but rather simply is a checklist that certain information has been provided. That is not the purpose of controlled activity status and in my view can more appropriately be dealt with as an additional condition of a permitted activity, as follows:

*The planting of new areas of plantation forest within any flow-sensitive catchment listed in Sections 6-15 is a **controlled permitted** activity, provided the forest planting meets the following conditions:*

1. *Existing areas of exotic tall vegetation, other than plantation forest, that is greater than 2 m tall and occupies more than 80% of the canopy cover and existed at 1 November 2010 may be planted in plantation forest; ~~and~~*
2. *The total area of land planted in plantation forest, ~~other than land planted pursuant to condition 1,~~ does not exceed 20~~15~~% of the flow sensitive catchment or sub-catchment listed in Section 6-15 total site area of a certificate of title that existed at 1 November 2010; and*
3. **Information on the location, density and timing of planting is provided to Environment Canterbury for their records.**

- 37 Dr Cowie acknowledges the improvement of the amended provision recommended by Officers over that notified in the pLWRP. However, Dr Cowie still considers that the proposed rule is not effects based, as it ignores whereabouts in the catchment the trees are planted⁹. However, Dr Cowie does consider that such a rule has merit in smaller catchments less than 20ha. If such a rule is to be retained I recommend that it is limited to such smaller catchments in accord with Dr Cowie's evidence.

⁸ Dr Cowie evidence, paragraph 51.

⁹ Dr Cowie evidence, paragraph 58.

38 For larger catchments the preferred relief sought is a new rule in accordance with the assessment set out in Dr Cowie's evidence, with controls imposed on the basis of protecting the 95% 7 day MALF and the 90% average flow within flow sensitive catchments.

39 This new rule is effectively that provided in the NRRP as Rule WQN28, except that conditions 1 and 2 have been simplified to be in accordance with condition 1 of the pLWRP Rule 5.110 as set out above. Condition 2 is the key component of the Rule as discussed in Dr Cowie's evidence. Given the more complex information requirements controlled activity status would be more appropriate in this instance, as Environment Canterbury ("ECan") Officers would have to verify the information provided:

The planting of new areas of plantation forest within any flow-sensitive catchment listed in Sections 6-15 is a controlled activity, provided the forest planting meets the following conditions:

- 1. Existing areas of exotic tall vegetation, other than plantation forest, that is greater than 2 m tall and occupies more than 80% of the canopy cover and existed at 1 November 2010 may be planted in plantation forest;**
- 2. The total area of land planted in plantation forest, other than land planted pursuant to condition 1, will not cumulatively cause more than a five percent reduction in the seven day mean annual low flow, and/or more than a 10 percent reduction in the mean flow; and.**
- 3. Information on the location, density and timing of planting is provided to Environment Canterbury for their records.**

40 As with WQN28, control would be reserved over the following matters:

- (a) The location and size of the area to be planted;
- (b) The portion of area to be planted within the low flow production area; and
- (c) The effect on the water allocation status of the catchment.

41 Any planting of plantation forestry that does not comply with this rule would become a restricted discretionary activity under the existing wording provided for in 5.111. On that basis no further changes are required to the rules.

42 It is acknowledged that the NRRP stated that number of catchments included in Schedule WQN15 would increase overtime as further assessment was undertaken. However, as noted in the evidence of Dr Cowie, there has been a considerable increase in the number of flow sensitive catchments identified in the pLWRP (24) over the NRRP (9). Officers do recommend that several of these are removed, however, no indication is provided as to what criteria were used to define these "flow sensitive" catchments. I agree with the observation of Dr Cowie that there should be little reason to move away from the criteria used in the NRRP (paragraph 72).

Structures (Rule 5.115(7))

- 43 As outlined in the evidence of Mr Meredith, the present rule relating to temporary culverts is overly stringent for plantation forestry operations in which it is often necessary to install crossing structures to access land (paragraphs 75 to 77). The four week restriction on such culverts is of little assistance to forestry operators. Requiring resource consents for these structures would be administratively inefficient and of little net environmental benefit.
- 44 As explained by Mr Meredith culverts and any other crossing structures utilised as part of typical commercial forestry activity are undertaken in accordance with the New Zealand Forest Road Engineering Manual (Roading Manual) and also the NZ Forest Road Engineering Manual – “Operators Guide”, being a complimentary document to the technical engineering manual with the target audience being those who are supervising physical operations or operating construction machinery within the forest. Both of these documents are being officially launched in each region in 2012/13 and as with the engineering manual the operators guide will be freely available via the NZFOA website.
- 45 On the basis that culverts are designed and constructed in accordance with these standards a period of 3 months is considered more appropriate and would avoid the need to obtain potentially numerous consents to construct forest infrastructure. The suggested alternative wording is as follows:

(d) the culvert is not in place for more than four weeks; or

(e) any culvert within a plantation forest shall be in place for the least practical time period not exceeding 3 months provided that the culvert is designed, constructed and used in accordance with an Erosion and Sediment Control Plan prepared in accordance with the Environmental Code of Practice for Plantation Forestry (ECOP) 2007; and

Vegetation in Lake and Riverbeds (Rule 5.143)

- 46 Mr Meredith refers to the nature of forestry operations and the situations where there is potential for removal of indigenous species in, on or under the bed of a lake or river. This occurs where indigenous species have grown in under or around plantation species throughout the rotation. Damage to these species is often unavoidable during harvesting. Production forest plantings in many cases have historically been into the beds of rivers. It would be unworkable if these plantings could not be removed simply because it would disturb some indigenous species that have grown in, under or around it.
- 47 On that basis the requested relief sought to split condition 6 into two parts, the second of which recognising that indigenous species as part of the under-storey of a plantation forest can be removed as part of the forest harvest activity. The relief sought is as follows:

6. *The disturbance, removal, damage or destroying of any plant or vegetation in, on, or under the bed of any river or lake listed as a high naturalness lake or river in Sections 6-15 is only of:*
- a) species non-indigenous species; or*
 - b) indigenous species that have grown up as the understory of plantation forest that existed in the bed of a river or lake on or before August 2012, provided that this only occurs as part of harvesting a plantation forest and that a minimum 5m setback from the river or lake is provided on replanting.*

Vegetation Clearance in Riparian Areas (Rule 5.147)

- 48 The present rule seeks to manage riparian zones by limiting the area of exposed bare ground to 10% of the area within the relevant setback distance in any site at any time. An exception is provided for pest plant spraying.
- 49 This provision provides some difficulty for forestry operations, particularly when seeking to harvest forests planted up to 30 years ago, when the need for separate distances/riparian setbacks was not recognised or otherwise provided for.
- 50 The Officers report (page 406) states "*It is noted that it was not the intention to require resource consent for "normal" farming or forestry activities, and the rules have been modified in the recommendations below to clarify this*". Despite this statement (which refers to the consideration of Rules 5.147 to 5.150) the relief sought in the original submission has not been recommended and consent would still be required based on the wording recommended therein.
- 51 To leave behind 90% of the trees within these setback areas would result in trees being left vulnerable to wind-throw and would be operationally inefficient to recover. As mentioned previously many plantations have historically been planted within these defined zones and upon harvest permanent setbacks are retained. The ECOP states under s9 'Planting' leave a horizontal setback of at least 5m each side of all permanently flowing streams.
- 52 I am aware that Rayonier has applied for global resource consent under the operative NRRP to harvest plantation forest within riparian zones. The process to apply and undertake consultation has been long (some 18 months) and expensive. All parties would be better served if this activity was made permitted, subject to the criteria outlined in the original submission, as follows:
- 1. *The area of bare ground resulting from vegetation clearance does not exceed 10% of the area within the relevant setback distance in any site at any time, except as a result of:*
 - a) pest-plant spraying; or*
 - b) the harvesting of plantation forest, provided that a minimum 5m horizontal setback from the river or stream is maintained on replanting.*
- 53 Other alternative options that would secure the same outcome include¹⁰:

¹⁰ It is noted that there may be a potential scope issue relating to these changes that were not specifically outlined in the relief sought in the original submission. Mr Fowler will address this point in his legal submissions.

- That the exclusions listed in the definition of vegetation clearance include "clearance for the purpose of harvesting existing plantation forestry"; or
- Seek a new condition 7:

Vegetation clearance undertaken within plantation forests carried out in accordance with an Erosion and Sediment Control Plan and Harvest Plan are not required to meet Conditions 1, 2 and 3.

54 Note – new definitions of Erosion and Sediment Control Plan and Harvest Plan would need to be inserted into the pLWRP (see discussion regarding definitions below).

Earthworks in Riparian Areas (Rule 5.148)

55 The issues for the forestry industry relating to this rule are similar to those expressed above in relation to vegetation clearance in riparian zones. The evidence of Mr Meredith outlines the situations whereby the forestry industry undertaken operations within riparian areas, including earthworks.

56 Rayonier seek that Rule 5.148 is amended so that all earthworks undertaken within plantation forests are a permitted activity provided that they are carried out in accordance with an Erosion and Sediment Control Plan and Harvest Plan prepared prior to operations being undertaken. This is the approach that has been recently adopted for the Horizon’s One Plan and which was also requested in relation the PC6A to the Otago Regional Plan (decisions pending). This adoption of best practice is supported by the evidence of Dr Quinn and Dr Phillips.

57 Rayonier supports the reduction in setback distances found in a. and b. recommended by the Officers.

58 Condition 7 presently includes an exception for activity associated with recovery or the establishment, maintenance or repair of network utilities, which do not have to comply with conditions 1, 2, or 6.

59 On that basis the most appropriate way to provide the relief sought in the Rayonier submission would be to include a new condition 8 to the rule as follows:

8. Earthworks undertaken within plantation forests carried out in accordance with an Erosion and Sediment Control Plan and Harvest Plan are not required to meet Conditions 1 and 2.

Vegetation Clearance and Earthworks in Erosion-prone Areas (Rule 5.150)

60 Forestry has traditionally been undertaken in land described as erosion prone and has had beneficial effects in terms of land stabilisation¹¹.

61 As above, Rayonier sought that vegetation clearance and earthworks ancillary to plantation forestry within such areas undertaken in accord with industry environmental codes of practice be a permitted activity.

¹¹ Dr Phillips evidence, paragraph 26.

- 62 The recommendations to (e) and (f) set out in the Officers report go some way to achieving that outcome (page 414 of Officers report). However, the reference in (e) is to the Environmental Code of Practice for Plantation Forestry and not the preparation of ESCP. In relation to vegetation clearance and earthworks it is considered more appropriate that reference be made to the ESCP. The inclusion of the reference to the ESCP within this rule recommended by Officers is consistent with the relief sought above in regard to rule 5.148.
- 63 The requirement set out in condition 1 that areas are replanted within 6 months is still retained in the Officers report. This can provide an operational difficulty for forestry activity given the land preparation required to be undertaken prior to establishing the next rotation and that subsequent planting can only occur within the next available planting season. It is very difficult to establish vegetation over the summer period in Canterbury and forestry planting for this reason takes place over the winter months. The common practice following harvesting is to allow the area that has been cleared to re-vegetate naturally. The area to be replanted is then sprayed with herbicide for weed control before replanting. This practice provides appropriate management of any erosion risk, but is not recognised or provided for under Condition 1.
- 64 Condition 4 of Rule 5.150 relates to concentration of total suspended solids and is identical to the conditions included in the stormwater discharge Rule 5.72A discussed above. For the reasons outlined in the evidence of Dr Quinn amendments are also sought to condition 4.
- 65 The following further amendments overcome these concerns:
- e. *Silvicultural practices of release cutting, pruning or thinning to waste and harvesting in accordance with **an Erosion and Sediment Control Plan and Harvest Plan prepared in accordance with the Environmental Code of Practice for Plantation Forestry (ECOP) 2007** ~~by suspension systems;~~⁴⁸⁴*
 - ...
 - 1. *Any cleared areas are stabilised and where it is not put to its final use shall be revegetated **as soon as practicable and no later than within 6 18 months from the date of the commencement of the vegetation clearance or earthworks, unless the area is left to revegetate naturally or converted to another land use;***
 - 4. the concentration of total suspended solids in the discharge shall not exceed:
 - (a) 50 g/m³, where the discharge is to any Spring-fed river, Banks Peninsula river, or to a lake; or
 - (b) 100 g/m³ where the discharge is to any other river or to an artificial watercourse.

Unless the discharge results from plantation forestry activity, and

 - (a) **The activity is undertaken in accordance with an Erosion and Sediment Control Plan and Harvest Plan which must be submitted to the Regional Council upon request.**

- (b) **For a discharge of stormwater to surface water the discharge does not, after reasonable mixing, breach the water clarity standards in Schedule 5 when flows in the receiving waters are below the median.**

Hazardous Substances (Rule 5.162)

- 66 Mobile fuel tankers are commonly used in forestry operations. Operational forest crews often store in excess of 2,000 litres of fuel in double skinned and banded, portable fuel tanks which remain on site for more than 90 consecutive days. These tanks are regularly serviced and audited to meet HSNO requirements. Fuel and oil management, such as the establishment of decanting stations are used to prevent spills onto bare ground. Rayonier (as would all commercial forestry operations) have an Emergency Response Procedure in the event of a spill and all those working in the forest are aware of this.
- 67 The Section 32 report specifically states that "*The PLWRP seeks to reduce the regional council requirements through placing greater reliance on the HSNO approval process...Overall, this is likely to result in considerably fewer resource consents*". In reality, the implications of this rule for the forestry industry would result in the need to resource consent.
- 68 The relief sought by Rayonier seeks to have this greater reliance on the HSNO approval process recognised in the rule framework by including a new condition requiring compliance with HSNO regulations, with the 90 day time limit in any consecutive 12 month period being deleted, as follows:
1. *The aggregate quantity of specified hazardous substances stored on a site in one or more portable containers does not exceed ~~2,000~~ 5,000⁵¹⁸ litres;*
 - 2. Storage and management of hazardous substances shall be in general accordance with HSNO regulations**
 - 5. ~~The container(s) do not remain on a site for more than 90 days in any consecutive 12 month period.~~**

Definitions

- 69 A number of changes were sought to the definitions included in the pLWRP as part of the Rayonier submission. In many instances those submission were accepted in the Officers Report. As it appears that those changes are not contentious they are not discussed further. The outstanding matters relate to:

Ecosystem Services

- 70 The issue raised in the submission was that the definition as notified was limited to freshwater bodies. It is a fact that other aspects also contribute to ecosystem services and it is important that these are acknowledged in the definition to be included in a land and water regional plan. The changes recommended in the Officers report do not address the issue raised in the submission. The addition of the IUCN definition at the end of the pLWRP definition is not appropriate – the first

part of the notified definition should be deleted so that the pLWRP definitions aligns with that recognised by the IUCN, as follows:

~~Ecosystem services means the physical functioning of a fresh water body that enables ecosystems, including people and communities to exist, and includes such things as flow variability, floodways, ponding and peak flow buffering and~~ includes the goods and services provided by healthy ecosystems, including medicinal plants, clean water and air, and protection from extreme natural events.

Erosion and Sediment Control Plans

- 71 The relief sought in relation to Rules 5.72, 5.147, 5.148 and 5.150 relies on the preparation of and adherence to an Erosion and Sediment Control Plan. The following definition is adapted from that used in the Horizon One Plan, which provides for plantation forestry activity as a permitted activity.

Erosion and Sediment Control Plan means a plan prepared in accordance with the "Environmental Code of Practice for Plantation Forestry (2007)" and having regard to the "New Zealand Forest Road Engineering Manual (2012)", the "New Zealand Road Engineering Manual – Operators Guide (2012)" and the "Erosion and Sediment Control Guideline 2007" prepared by Environment Canterbury: In all cases the Erosion and Sediment Control Plan shall include, but not be limited to:

- (i) The description of the nature, scale, timing and duration of activities including construction, roading, the formation of any new track, earthworks, stabilisation and harvesting,
- (ii) The erosion and sediment control measures to be employed and indicative locations,
- (iii) Water run off controls,
- (iv) Methods to avoid the slumping of batters, cuts and side castings,
- (v) Measures to maintain slope stability,
- (vi) Methods of sediment retention and control of sediment run off,
- (vii) Methods to avoid effects on riparian margins and water bodies,
- (viii) Re-vegetation requirements,
- (ix) Detail heavy rainfall response and contingency measures,
- (x) Identify maintenance and monitoring procedures,
- (xi) Identify procedures for review and amendment to the Erosion and Sediment Control Plan, and
- (xii) Relevant Harvest Plans (including maps and associated text).

Harvest Plan

- 72 Much like as described above in relation to ESCP, the relief sought in relation to Rules 5.72, 5.147, 5.148 and 5.150 relies on the preparation of and adherence to a Harvest Plan. A Harvest Plan forms part of the ESCP. The following definition is similarly adapted from that used in the Horizon One Plan, which provides for plantation forestry activity as a permitted activity.

Harvest Plan means a plantation forest Harvest Plan prepared in accordance with the "Environmental Code of Practice for Plantation Forestry (2007)" and having regard to the "New Zealand Forest Road Engineering Manual (2012)", the "New Zealand Road Engineering Manual – Operators Guide (2012)" and the "Erosion and Sediment Control Guideline 2007" prepared by Environment Canterbury. Any Harvest Plan must include a Harvest Plan Map and associated text. The Harvest Plan Map must be produced at between 1:5,000 up to 1:10,000 scale and must include, but not be limited to, the following:

- (i) Title, date and north arrow.
- (ii) The harvest area boundary.
- (iii) Any property boundaries in the vicinity of the harvest area.
- (iv) Contours.
- (v) Location of all proposed and existing roads, tracks, landings, firebreaks, stream crossings and associated culverts.
- (vi) Harvesting methodology (hauler or ground-base) and proposed extraction directions.
- (vii) Location of any water bodies, perennial streams and the bed of any lake.
- (viii) Location of any wetland identified in Schedules 9 and 10.
- (ix) Location of any known historic heritage or waahi tapu sites, outstanding natural features and landscapes, areas of significant indigenous vegetation and habitats of significant indigenous fauna identified in any district or regional plan.
- (x) Location of slash management and disposal areas for hauler landings.
- (xi) Location of end haul disposal areas, and
- (xii) Any other area relevant to managing the harvest area.

Hill and High Country

- 73 The original submission sought amendment to the definition to achieve a consistent linkage to the map volumes and in particular the Soil Erosion Risk Mapping, being 'Hill Country' slopes >20 degrees and High Country Slopes > 25 degrees (or as amended by map changes). The Officers have recommended changes to the slope angles used for the Soil Erosion Risk Mapping. It is considered that it would avoid any potential ambiguity and confusion if the definitions of these terms aligned with those changes introduced by the section 42A report (or any further amendments made).

Plantation Forest

- 74 The original submission sought that the existing definition within the pLWRP as notified be deleted and replaced by the following:

A forest of selected species of trees that are specifically planted and managed for a carbon sink or planted and managed specifically for harvesting and production of timber or other wood based products, and includes under-storey that has established beneath the canopy and areas that are demonstrated to be failed plantings from the previous rotations.

- 75 This was accepted by the Officers and Rayonier supports this Officer recommendation.

Mapping

- 76 As set out in the evidence of Dr Phillips (paragraph 77), in his opinion the definition of soil erosion risk zones could be improved further beyond the deletion of the low and moderate erosion hazard zones (layer LH1) recommended in the Officer report. Dr Phillips considers that the slope threshold (20⁰) is too low, and cites values of 26⁰ for loess and 24-28⁰ for Tertiary soft rocks as used elsewhere around the country.

OBJECTIVES AND POLICIES

- 77 The Objectives contained in the pLWRP are considered fairly broad. As discussed above only one change is proposed to the policy framework notified in the pLWRP (to Policy 4.19). The proposed changes are considered in accordance with Objective 3.23 that requires all activities to operate at 'best practice' or better to protect the region's freshwater resources from quality and quantity degradation.
- 78 The evidence of Dr Quinn and Dr Phillips illustrates that the rotational nature of forestry and the resulting effects profile causes some difficulty for forestry operations at the time of harvest and immediately thereafter to comply with the all of the standards set out in the pLWRP, which appear to be aimed more at controlling effects from traditional land uses with greater cumulative effects over the temporal scale of a forestry rotation. A key difference between forestry and other such land uses appears to be that even with the adoption of best practice, compliance with the standards set out in the pLWRP may not always be achievable. On that basis more qualitative standards requiring the preparation of and adherence to ESCP and Harvest Plans in accordance with the ECOP are considered appropriate.
- 79 The proposed new rules are a direct recognition of this different effects profile. In my view the proposed amendments better achieve the Objectives (and associated Policies) of the pLWRP in relation to forestry activity than those provisions as notified. The most relevant Objectives and Policies are attached as **Appendix 3** to my evidence.

NATIONAL POLICY STATEMENT FOR FRESHWATER MANAGEMENT (2011)

- 80 The NPS for Freshwater Management ("NPSFM") was gazetted on 12 May 2011 and took effect from 1 July 2011. The preamble to the NPSFM identifies that due to the vital importance of freshwater resources to New Zealand, and in order to achieve the purpose of the RMA, it is necessary for clear central government policy to set a national direction for the management of water resources. Setting enforceable quality and quantity limits it is a key purpose of this national policy statement. The NPSFM does, however, acknowledge that this direction needs to occur on a regional basis to reflect the catchment-level variation between water bodies and the different demands on freshwater resources across regions. The process for setting limits should be informed by the best available information and scientific and socio-economic knowledge.
- 81 In support of its submission Rayonier has engaged various experts in their respective fields to specifically assess the Canterbury situation in light of how forestry has been treated in the Horizons One Plan (i.e., as a permitted activity). It is their expert evidence that whilst different, Canterbury displays characteristics in terms of erosion susceptibility and sedimentation that mean that such a regulatory approach is also appropriate in the Canterbury situation. The proposed rules

above, whilst in many cases providing exceptions to enable plantation forestry in recognition of its cyclical/rotational nature of harvest activity, still require standards to be adhered to in terms of water clarity (Rule 5.72A) and potential reductions in low flows (Rule 5.110). The amended provisions sought for plantation forestry activity in terms of Rule 5.72A are considered appropriate in recognition of the net environmental benefits that can be demonstrated by plantation forestry through paired catchment studies when compared to other alternative land uses.

SECOND REPORT – FRESHWATER MANAGEMENT FORUM

- 82 'The Second Report of the Land and Water Forum' (released on 18 May 2012) ("the Second Report") addresses how Regional Council's may implement the NPSFM through regional plans.
- 83 The key issue for the forestry sector arising from the Second Report is the nature of rules that are promoted by regional councils to give effect to the NPSFM, particularly in respect of setting quantitative standards for water quality and in particular for forestry suspended sediment. The Second Report does acknowledge the challenge this sets due to variation caused by natural processes, differing environments, and large rainfall events. The Second Report promotes a collaborative process to set objectives and limits intended to provide effective and enduring outcomes.
- 84 As noted throughout the evidence of Dr Phillips, whilst a pragmatic solution, the one-size-fits-all approach to the rule framework adopted by the pLWRP fails to take into account:
- (i) The variability of geological conditions throughout Canterbury.
 - (ii) The factors that generate sediment such as rainfall (intensity and duration), soil types, soil moisture conditions, catchment condition etc.
 - (iii) The cyclical/rotational nature of growing and harvesting a crop of trees with an inevitable short period of vulnerability during, and for a short period after, harvesting.
- 85 The proposed amendments discussed above overcome these matters and enable forestry activity to be undertaken within a regulatory framework that encourages the adoption of industry codes of practice and the formulation of complimentary ESCP. However, when forestry activity may lead to potential adverse effects, such as reduction in water clarity and in flow sensitive catchments, the resource consent process is triggered to enable a thorough assessment of any potential adverse effects.

PART 2 OF THE RMA

86 Part 2 of the RMA sets out the purpose and principles of the RMA. Section 5 sets out the purpose of the RMA, being "*to promote the sustainable management of natural and physical resources*". As you will be aware this purpose is enabling, in order that people and communities may "*provide for their social, economic, and cultural well-being and for their health and safety*" while maintaining the bottom lines set out in section 5 (a), (b) and (c).

87 One of the matters of national importance is directly relevant in this case, being section 6(a):

the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:

88 The requirement to prepare and adhere to ESCP is aimed at preserving the natural character of lakes, rivers and their margins.

89 Section 7 requires particular regard to be had to 'other matters'. Of relevance to this application are:

(b) *the efficient use and development of natural and physical resources;*

(c) *the maintenance and enhancement of amenity values; and*

(f) *maintenance and enhancement of the quality of the environment;*

90 The pLWRP as notified failed to provide appropriate recognition of the long-term cyclical (rotational) nature of plantation forestry, the general low level of underlying susceptibility to erosion within the Canterbury region and the widespread use of good industry practice within the plantation forestry sector. The impact of the pLWRP on the plantation forestry sector has not been subject to a rigorous cost/benefit evaluation. The amendments recommended in the Officers' Report, whilst an improvement over the pLWRP as notified, do not sufficiently address these shortcomings. If the rules are not amended to accommodate the very different effects profile of forestry compared to other rural activity, the significant economic, recreational and environmental benefits provided by plantation forestry are placed at risk. In my view this outcome is contrary to the purpose of the RMA.

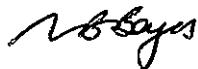
CONCLUSIONS

91 The forest industry has developed and *Environmental Code of Practice for Plantation Forestry (2007)* as well as technical reference manuals such as the *NZ Forest Road Engineering Manual 2012* and *NZ Forest Road Engineering Manual - Operators Guide* for undertaking earthworks and associated infrastructure design and maintenance.

92 The pLWRP contains Objective 3.23 which recognises "good practice" and the ability to protect the region's freshwater resources from quality and quantity degradation. In that context amendments are requested to the rules contained in the pLWRP to

recognise the environmental benefits of plantation forestry when compared to other alternative land uses, and also the differing temporal effects profile of plantation forestry given the cyclical/rotational nature of harvest activity.

- 93 These changes allow plantation forestry to establish without undue regulatory interference, which may otherwise discourage forestry activity from establishing. In my view the CRC should be supportive of the plantation forestry industry's pursuit of good practice by providing a permissive framework that recognises that adverse effects can appropriately be avoided and mitigated when good practice is followed.



Nick Boyes

Planz Consultants Ltd

4 February 2013

Memorandum of Agreement – Horizons One Plan

BEFORE THE ENVIRONMENT COURT

In the matter of appeals under clause 14 of the First Schedule to the Resource Management Act 1991 concerning proposed One Plan for the Manawatu-Wanganui region.

between

ERNSLAW ONE LTD
ENV-2010-WLG-000146

HANCOCK FOREST MANAGEMENT NZ LTD
ENV-2010-WLG-000161

RAYONIER NEW ZEALAND LTD
ENV-2010-WLG-000162

NEW ZEALAND FOREST MANAGERS LTD
ENV-2010-WLG-000164

WELLINGTON FISH & GAME COUNCIL
ENV-2010-WLG-000157

P F OLSEN LTD
ENV-2010-WLG-000165

Appellants

and

MANAWATU-WANGANUI REGIONAL COUNCIL
Respondent

**MEMORANDUM OF AGREEMENT RESOLVING POINTS OF APPEAL ON RULE
12-2 IN THE TOPIC OF LAND**

Dated: February 2012

Filing party: Respondent



Solicitor: John W Maassen/Nicholas Jessen

Administrator: Barry Gilliland

Address: 11-15 Victoria Avenue
Private Bag 11025
Palmerston North 4442

Telephone: (06) 952 2800

Facsimile: (06) 952 2929

Email: barry.gilliland@horizons.govt.nz

**MEMORANDUM OF AGREEMENT RESOLVING POINTS OF APPEAL ON RULE
12-2 IN THE TOPIC OF LAND**

MAY IT PLEASE THE COURT

1. Ernslaw One Ltd¹, Hancock Forest Management (NZ) Limited², Rayonier New Zealand Limited³, New Zealand Forest Managers Limited⁴, Wellington Fish & Game Council⁵ (WF&G), and P F Olsen Limited⁶, the undersigned s274 parties and MWRC agree that the appellants' points of appeal on Rule 12-2 in the topic of Land can be resolved by amendments to the Proposed One Plan (POP) as attached at Appendix 1.
2. Rayonier New Zealand Limited⁷ and New Zealand Forest Managers Limited⁸ agree that their points of appeal relating to Rule 13-8 are also resolved by the attached amendments to Rule 12-2. Hancock Forest Management⁹ agrees that the same amendment resolves its appeal relating to Rule 13-9.
3. The amendments to POP which resolve all of the above appeal points are summarised in the list below and are identified by yellow highlight at **Appendix 1:**
 - (a) Amendments to Rule 12-2, specifically:
 - (i) to the Rule stem to include the "*discharge^ of sediment or slash* into water^ or onto or into land^ that may enter water^* pursuant to s15(1) or 15(2A) RMA resulting from the *forestry**", and
 - (ii) to Rule 12-2 conditions, standards and terms, to improve clarity and provide a greater level of specificity.
 - (b) Amendments to Schedule E Glossary, specifically amendments to the definition for "Erosion and Sediment Control Plan" to specify the content of such a plan required under Rule 12-2.

¹ Appeal Points # 1, 2, 3, 4, 5.

² Appeal Points # 1, 2, 3, 4, 5.

³ Appeal Points # 4, 5, 6, 7, 8.

⁴ Appeal Points # 4, 5, 6, 7, 8.

⁵ Appeal Point # 25.

⁶ Appeal Points # 4, 5, 6, 7, 8.

⁷ Appeal Point #9


⁸ Appeal Point #9

⁹ Appeal Point #6

4. Amendments to POP as described in clause 3(a) and 3(b) above (Rule 12-2 and Glossary) are within the scope of the relief sought by the appellants in their Notices of Appeal as they relate to Rule 12-2.
5. MWRC considers that the undersigned parties¹⁰ are the only parties with an interest in the relief provided by this agreement.
6. For clarity the undersigned parties agree that their appeals or interests regarding Rule 12-2 (Forestry) are resolved by this agreement.
7. There are no issues as to costs.

¹⁰ The undersigned parties include all appellants to Rule 12-2 and all s274 parties to those appeal points.0

On behalf of Manawatu-Wanganui
Regional Council



On behalf of Erislaw One Ltd
Counsel



On behalf of Hancock Forest
Management (NZ) Ltd
Counsel



On behalf of Rayonier New
Zealand Limited
Counsel

On behalf of New Zealand Forest
Managers Limited

On behalf of Wellington Fish &
Game Council

On behalf of P F Olsen Limited

On Behalf of Minister of
Conservation

On behalf of Horowhenua District
Council

On behalf of Manawatu District
Council

On behalf of Rangitikei District
Council

On behalf of Federated Farmers of
New Zealand Inc

On behalf of Horticulture New
Zealand

On behalf of Palmerston North
City Council

On behalf of Powerco Ltd

On behalf of Royal Forest and Bird
Protection Society of NZ Inc

On behalf of Taranaki Fish & Game
Council

On behalf of Transpower New
Zealand Ltd

On behalf of Winstone Pulp
International Ltd

APPENDIX 1

and small schools (under 2,000 l/d), but excludes commercial and industrial wastes*, large-scale laundry activities and any stormwater flows.
[Water Hearing]

Dominant (or dominated) means, for the purposes of Schedule E and this glossary, species that contribute more than any other species to the composition of an area of interest. Dominant species are the most characteristic species of the area of interest or habitat type. This is a measure of the contribution to an area of interest of a species in relation to other species in the same area, and is not simply a frequency count as both biomass and density of a given species are considered.
[Biodiversity and Heritage Hearing]

Duneland means for the purposes of Schedule E areas where the landform is characterised by sand dunes (active or stable).
[Biodiversity and Heritage Hearing]

Endemic means a species that is indigenous only to a certain area – eg., the Manawatu-Wanganui Region of New Zealand.
[Biodiversity and Heritage Hearing]

Energy efficiency means a change to energy use that results in an increase in the net benefits per unit of energy.
[General Hearing]

Erosion and Sediment Control Plan means a plan prepared in accordance with the "Erosion and Sediment Control Guidelines for the Wellington Region" dated September 2002.:

(a) In all cases the Erosion and Sediment Control Plan shall include, but not be limited to:

- (i) A description of the nature, scale, timing, and duration of *land disturbance** and earthworks,
- (ii) Water* run off controls,
- (iii) Methods to prevent slumping of batters, cuts and side castings,
- (iv) Measures to maintain slope stability,
- (v) Methods of sediment retention and control of sediment run off,
- (vi) Methods to avoid effects on riparian margins and *water bodies**,
- (vii) Revegetation requirements,
- (viii) Methods to monitor achievement of the plan, and
- (ix) Contingency measures for heavy rainfall events.

(b) For the purposes of Rule 12-2 (*forestry**), a plan which may either be separate to or form part of an *Operational plan** and which is prepared in general accordance with the "Erosion and Sediment Control Guidelines for the Wellington Region" dated September 2002 to the extent that it addresses the matters in Section 8 (*Forestry Activities*) and that any erosion and sediment control measures employed are in general accordance with the specifications in Sections 4 and 5.

The *Erosion and Sediment Control Plan** must include, but not be limited to the following:

- (i) The description of the nature, scale, timing and duration of activities including construction, roading, *track**ing, earthworks, stabilisation and harvesting,
- (ii) The erosion and sediment control measures to be employed and indicative locations,
- (iii) Detail heavy rainfall response and contingency measures,
- (iv) Identify maintenance and monitoring procedures,
- (v) Identify procedures for review and amendment to the *Erosion and Sediment Control Plan**, and

(i) Relevant Harvest Plans (including maps and associated text).

Any Harvest Plan in (VI) above must include a Harvest Plan Map and associated text. The Harvest Plan Map must be produced at 1:5,000 up to 1:10,000 scale and must include, but not be limited to, the following:

- (i) Title, date and north arrow.
- (ii) The harvest area boundary.
- (iii) Any property boundaries in the vicinity of the harvest area.
- (iv) Contours.
- (v) Location of all proposed and existing roads, track*s, landings, firebreaks, stream crossings and associated culverts.
- (vi) Harvesting methodology (hauler or ground-base) and proposed extraction directions.
- (vii) Location of any water bodies[^], perennial streams and the bed[^] of any lake[^].
- (viii) Location of any wetland[^] identified in Schedule E and of any trout fishery or spawning rivers[^] identified in Schedule AB.
- (ix) Location of any rare habitat^{*}, threatened habitat^{*} or at risk habitat^{*} within or adjacent to the harvest area.
- (x) Location of any known historic heritage[^] or waahi tapu^{*} sites, outstanding natural features and landscapes, areas of significant indigenous vegetation and habitats of significant indigenous fauna identified in any district or regional plan.
- (xi) Location of slash^{*} management and disposal areas for hauler landings.
- (xii) Location of end haul disposal areas, and
- (xiii) Any other area relevant to managing the harvest area.

The text associated with the Harvest Plan Map must include, but not be limited to, the methods and or management tools employed, or to be employed to meet the standards of Rule 12.2, in particular Rule 12.2(i), (k) and (l) related to slash management.

The method and or management tools shall be in general accordance with Section 8 of the "Erosion and Sediment Control Guidelines for the Wellington Region" dated September 2002. Where there is any conflict between the requirements of Rule 12-2 and Sections 8.3.2 (protection areas) and section 8.4.3 (extraction operations) of the "Erosion and Sediment Control Guidelines for the Wellington Region" dated September 2002, the relevant Rule 12-2 condition(s) must prevail.

[Land Hearing]

Feedpad means an area of artificially sealed land[^] used principally for feeding animals

[Water Hearing]

Fernland means, for the purposes of Schedule E, an area of vegetation in which the cover of ferns in the canopy^{*} is 20-100% and in which the fern cover exceeds the cover of any other growth form or bare ground. Tree ferns 10 cm diameter or greater at 1.4 m above the ground are excluded from this definition and are trees^{*}.
[Biodiversity and Heritage Hearing]

Fertiliser means any substance or mix of substances that is described as or held to be suitable for sustaining or increasing the growth, productivity or quality of plants (or animals indirectly) through the application to plants and soils of:

- (a) the following major nutrients: nitrogen, phosphorus, potassium, sulphur, magnesium, calcium, chloride and sodium
- (b) the following minor nutrients: manganese, iron, zinc, copper, boron, cobalt, molybdenum, iodine and selenium
- (c) non-nutrient attributes of the materials used in fertiliser

same area, and is not simply a frequency count as both biomass and density of a given species are considered
[Biodiversity and Heritage Hearing]

Oil means petroleum in any form other than gas and includes crude oil, fuel oil sludge, oil refuse and refined oil products (eg. diesel fuel, kerosene, light fuel and motor gasoline)
[General Hearing & Water Hearing & Coast Hearing]

Outdoor burning means the burning of materials other than in purpose-built fuel-burning equipment designed to control the combustion process. Outdoor burning includes burning in drums and backyard rubbish incinerators, barbeques, hāngi, umu and outdoor fireplaces.
[General Hearing]

Operation means the use of any *structure*[^] system, facility or installation, including ancillary resource use (For the purposes of Chapter 3 only, *ancillary resource use* is this definition excludes the discharge of contaminants and the abstraction of water. This exclusion does not apply to ancillary resource use for the purposes of renewable electricity generation or which is permitted by a rule.)
[General Hearing]

Operational plan means, for the purposes of Chapter 12, an operational plan to minimise any potential adverse *effects*[^] on any *rare habitat*^{*}, *threatened habitat*^{*} or *at-risk habitat*^{*} resulting from *forestry*^{*}. The operational plan must be prepared in accordance with Part 3, take into account the Ecological values in Part 2 Section 5, and comply with the Best Environmental Management Practices in Part 1, of the New Zealand Environmental Code of Practice for Plantation Forestry Version 1.
[Land Hearing]

(The Operational plan may include an *Erosion and Sediment Control Plan*^{*})

Persistent organic pollutants (POP) are organic substances that:

- (a) demonstrate toxic properties
- (b) resist degradation
- (c) bioaccumulate
- (d) can undergo a long-range transfer in air and *water*[^]
- (e) have a potential harmful *effect*[^] on health or the *environment*[^] including accumulating in living organisms and the food chain.

Examples include pesticides (such as DDT), industrial chemicals (such as polychlorinated biphenyls - PCBs) and unintentional by-products of industrial processes (such as dioxins and furans).
[General Hearing]

Pig farm litter means a mixture of spent bedding and solids from pig production sheds which produces no liquid loss when squeezed in the hand.

PM₁₀ means particulate matter that is:

- (a) less than 10 microns in aerodynamic diameter
- (b) measured in accordance with the United States Code of Federal Regulations, Title 40 – Protection of Environment, Volume 2, Part 50, Appendix J - Reference method for the determination of particulate matter as *PM₁₀* in the atmosphere.

[General Hearing]

Podocarp means for the purposes of Schedule E, southern hemisphere conifer species which have cones modified into fleshy berry-like structures but do not have flowers. Podocarp species include, but are not limited to, the totara species, matai, miru, kahikatea and rimu

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
12-2 Forestry*	<p>Except as regulated by Rule 12-2-6, any <i>forestry*</i> pursuant to s9(2) RMA, and any ancillary:</p> <p>(a) disturbance of the <i>bed</i> of a <i>river</i> or <i>lake</i> pursuant to s13(1) RMA by <i>forestry*</i>, or</p> <p>(b) diversion of <i>water</i> pursuant to s14(1) RMA on the land (but not within a <i>river</i>) where the <i>forestry*</i> is undertaken, or</p> <p>(c) <i>discharge</i> of sediment or <i>slash</i> into <i>water</i> or onto <i>or into land</i> that may enter <i>water</i> pursuant to s15(1) or 15(2A) RMA resulting from the <i>forestry*</i>.</p>	Permitted	<p>(a) The activity must not take place on <i>land</i> that is within a <i>coastal foredune*</i>.</p> <p>(b) Any <i>track*</i>ing, <i>earthworks</i>, planting or replanting of <i>forestry*</i> trees must not occur on <i>land</i> that is in, or within 5m of:</p> <p>(i) the <i>bed</i> of a <i>river</i> that is permanently flowing or has an active bed with greater than 2m</p> <p>(ii) the <i>bed</i> of a <i>lake</i></p> <p>(iii) a <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i></p> <p>unless the <i>track*</i>ing or <i>earthworks</i> in (b) (i) or (ii) is associated with a formed <i>river</i> crossing point that is a consented or permitted activity and or the <i>maintenance*</i> or <i>upgrading*</i> is of an existing <i>track*</i> or <i>earthwork</i>.</p> <p>(c) Any new planting of <i>forestry*</i> trees and associated <i>track*</i>ing or <i>earthworks</i> must not occur on <i>land</i> that is in, or within 10m of <i>wetland</i> habitat types (including <i>lakes</i>) as defined in Schedule E.</p> <p>(d) Any <i>track*</i>ing or <i>earthworks</i> must not occur on <i>land</i> that is in, or within 10m of a <i>river</i> or its <i>bed</i> with a Schedule AB value of Trout Spawning or Trout Fishery, unless the <i>track*</i>ing or <i>earthworks</i> is associated with a formed <i>river</i> crossing point that is a consented or permitted activity and or the <i>maintenance*</i> or <i>upgrading*</i> is of an existing <i>track*</i> or <i>earthwork</i>.</p>	

			<p>(e) (e) If any <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i> is present within within 5 m of an area of <i>forestry*</i> prior to undertaking harvesting an <u><i>Operational plan*</i>, detailing measures taken to avoid or mitigate adverse effects on these areas, must be prepared and submitted to the Regional Council at least 48 hours prior to harvesting commencing and the <i>Operational plan*</i> must be compiled with.</u></p> <p>(f) (f) Any area of <i>forestry*</i> that is harvested (other than firebreaks, <i>tracks*</i>, <i>landing sites*</i> or areas in (a) and (b)) must be planted or replanted to protect from erosion as soon as practicable and no later than 18 months from the date of the harvesting, unless the area is left to revegetate naturally.</p> <p>(g) (g) <i>Water</i> run-off controls must be installed and maintained for <i>tracks*</i> and <i>landing sites*</i>.</p> <p>(h) (h) Batters, cuts and side castings must be established by methods that prevent slumping.</p> <p>(g) <u>Vegetation must be felled away from any area listed in (b), other than where this would endanger the health and safety of workers.</u></p> <p>(i) (h) Felled vegetation must be felled away from and not be dragged through any <i>water body</i> or area listed in (b) other than where this is: (i) necessary to avoid endangering the health and safety of workers, <u>or where it is unavoidable and is the best harvest method such as, but not</u></p>	
--	--	--	---	--

		<p>limited to, hauling through corridors or but extraction, and</p> <p>(ii) <u>any discharge</u> resulting from the activity must not, after reasonable mixing, breach the water quality numeric for change in visual clarity identified for that <u>water body</u> set out in Schedule D, and</p> <p>(iii) <u>must not occur in a water body</u> with a Trout Spawning value identified in Schedule AB during the <u>trout spawning season</u> (1 May to 30 September inclusive), and</p> <p>(iv) <u>must not occur in a water body</u> greater than 5m in width, and</p> <p>(v) <u>must not occur in an area listed in (b) (iii).</u></p> <p>(j) Harvesting must be planned and carried out so as to minimise the amount of <u>slash</u> entering <u>discharging into</u> any area listed in (b)(i) and (ii) and entering any area listed in (b)(iii).</p> <p>(k) Slash <u>must be removed from within areas listed in (b)(i) where it is blocking river</u> flow, or its diverting <u>river</u> flow and causing bank erosion.</p> <p>(l) Slash <u>associated with landing sites and processing sites must be placed on stable ground and managed to avoid it falling down any slope contained to prevent accumulated slash</u> <u>from causing erosion or lands instability.</u></p> <p>(m) <u>The use of mobile machinery in or on the bed</u> of a <u>river</u> with a Schedule AB Value of Trout Spawning in a manner that disturbs the <u>bed</u> of the active flowing</p>	
--	--	---	--

			<p>channel must not take place during the trout spawning season (1 May to 30 September inclusive).</p> <p>(n) <u>The use of mobile machinery in or on the bed⁴ of a river⁴ with a Schedule AB Value of whitebait migration in a manner that disturbs the bed⁴ of the active flowing channel must not take place 15 August to 30 November (inclusive).</u></p> <p>(o) <u>Any activity must be undertaken in accordance with an Erosion and Sediment Control Plan* which must be submitted to the Regional Council upon request.</u></p> <p>(p) <u>Any discharge⁴ resulting from the activity must not, after reasonable mixing, breach the water quality numerics for change in visual clarity identified for that water body⁴ set out in Schedule D.</u></p> <p>(q) <u>The Regional Council must be notified at least 48 hours prior to the activity commencing.</u></p>	
--	--	--	---	--

POLICIES

Soil Stability Policy 4.19

- Notified:** Sedimentation of waterbodies as a result of land clearance, earthworks and cultivation is prevented by maintaining continuous vegetation cover adjacent to waterbodies, or capturing surface run-off to remove sediment and other contaminants.
- Requested:** Sedimentation of waterbodies as a result of land clearance, earthworks and cultivation is **minimised through the process of carrying out good practise erosion and sediment controls** ~~prevented by maintaining continuous vegetation cover adjacent to waterbodies, or capturing surface run-off to remove sediment and other contaminants.~~
- Officer's:** *Sedimentation of waterbodies as a result of land clearance, earthworks and cultivation is avoided or minimised ~~prevented~~ by the adoption of control methods and technologies, such as maintaining continuous vegetation cover adjacent to waterbodies, or capturing surface run-off to remove sediment and other contaminants or via methods such as direct drilling crops and cultivation that follows the contours of a paddock.*
- Discussion:** Support the Officers recommendation.

Stormwater Discharge Rule 5.72 (now 5.72A)

- Notified:** The discharge of stormwater into a river, lake, wetland or artificial watercourse or onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
6. For a discharge of stormwater to surface water:
 - (a) The discharge meets the water quality standards in Schedule 5 after reasonable mixing with the receiving waters, in accordance with Schedule 5;
 - (b) the concentration of total suspended solids in the discharge shall not exceed:
 - (i) 50 g/m³, where the discharge is to any spring-fed river, Banks Peninsula river, or to a lake; or
 - (ii) 100 g/m³ where the discharge is to any other river or to an artificial watercourse; and
 - (c) the discharge to water is not within a group or community drinking water supply protection area as set out in Schedule 1.
- Requested:** The discharge of stormwater into a river, lake, wetland or artificial watercourse or onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:
6. For a discharge of stormwater to surface water:
 - (a) The discharge meets the water quality standards in Schedule 5 after reasonable mixing with the receiving waters, in accordance with Schedule 5;
 - (b) the concentration of total suspended solids in the discharge shall not exceed:
 - (i) 50 g/m³, where the discharge is to any spring-fed river, Banks Peninsula river, or to a lake; or
 - (ii) 100 g/m³ where the discharge is to any other river or to an artificial watercourse;

except that when background concentrations in the receiving water are higher than the standards specified, the activity or discharge shall not increase the concentration of suspended solids in the receiving water by more than 20%.

For the purpose of this condition, the point at which compliance is measured is after reasonable mixing has occurred which in any instance does not exceed 200 metres from the point of the discharge; and

- (c) the discharge to water is not within a group or community drinking water supply protection area as set out in Schedule 1.

Officers:

The discharge of stormwater into a river, lake, wetland or artificial watercourse or onto or into land in circumstances where a contaminant may enter a river, lake or artificial **watercourse** water is a permitted activity provided the following conditions are met:

2. The discharge is not into a community stormwater system, and

~~6-(d)~~ For a discharge of stormwater to surface water:

~~(a)~~(i) The discharge meets the water quality standards in Schedule 5 after reasonable mixing with the receiving waters, in accordance with Schedule 5;

~~(b)~~(ii) the concentration of total suspended solids in the discharge shall not exceed:

(i) 50 g/m³, where the discharge is to any spring-fed river, Banks Peninsula river, or to a lake; or

(ii) 100 g/m³ where the discharge is to any other river or to an artificial watercourse; and

~~(c)~~(iii) the discharge to water is not within a group or community drinking water supply protection area as set out in Schedule 1.

Discussion:

The notified rules have been split into discharges to land and to surface or groundwater. The other main change is to make it rule clear that if a stormwater discharge is going into a community system it does not need to comply with the other conditions within the rule. The Officers report states:

Condition 6(b) – Rayonier NZ and Blakely Pacific Ltd have requested that this condition be altered to allow for situations where the background concentration of sediment within the receiving water maybe higher due to periods of heavy rainfall, as an example. The submitters state that 100 g/m³ is appropriate for most land disturbance activities, but not during heavy rain.

Where land disturbance is occurring, erosion and sediment control measures appropriate to the site should be implemented to ensure that any discharge of stormwater from a site does not contain substantial suspended solids. With regard to the where total suspended solids should be measured it is appropriate that this occur at the point of discharge, as that is the easiest point of measurement.

A complimentary outcome would be to reference Erosion and Sediment Control Plans as part of this rule, as follows:

The discharge of stormwater into a river, lake, wetland or artificial watercourse or onto or into land in circumstances where a contaminant may enter a river, lake or artificial watercourse ~~water~~ is a permitted activity provided the following conditions are met:

1. *The discharge is into a community ~~or network utility operator~~¹⁹⁸ stormwater system or*

2. **The discharge results from plantation forestry activity, and**

- (a) **The activity is undertaken in accordance with an Erosion and Sediment Control Plan and Harvest Plan which must be submitted to the Regional Council upon request.**
- (b) **For a discharge of stormwater to surface water the discharge does not, after reasonable mixing, breach the water clarity standards in Schedule 5 when flows in the receiving waters are below the median.**

or

3. The discharge is not into a community stormwater system, and¹⁹⁹

...

Flow Sensitive Catchments (Rule 5.110)

Notified: The planting of new areas of plantation forest within any flow-sensitive catchment listed in Sections 6-15 is a permitted activity, provided the forest planting meets the following conditions:

1. Existing areas of exotic tall vegetation, other than plantation forest, that is greater than 2 m tall and occupies more than 80% of the canopy cover and existed at 1 November 2010 may be planted in plantation forest; and
2. The total area of land planted in plantation forest, other than land planted pursuant to condition 1, does not exceed 15% of the total site area of a certificate of title that existed at 1 November 2010.

Requested: *Immediate Changes*

- Amend the lists of flow sensitive catchments included in each sub-regional section to only include those nine catchments that are currently controlled in the NRRP (Schedule WQN15).
- Amend Rule 5.110 to either:
 - (a) Change the rule back to the a rule equivalent to WQN28 in the NRRP; or
 - (b) Adopt a permitted activity rule that allows up to 20% of a flow sensitive catchment to be planted on a first come first served basis.

Longer term solution

In addition to the above, Rayonier suggested that CRC further develop and refine the model included within the NRRP using a rational science based approach that takes into account the economic social and environmental implications of the decision to plant any flow sensitive catchment. The basis of this approach could be via the Canterbury Water Management Strategy Zone Committees and undertaken progressively with a proposed end date of 2017.

A suggested approach is to adopt the following model principles.

- (a) Overlay areas that are deemed suitable for planting in production forest within the identified flow sensitive catchments. This information is supplied as Appendix 1 to this submission which was tabled as further evidence at the PNRRP hearings.
- (b) Exclude areas within these catchments that are already in tall woody vegetation that are already contributing to reduction in total water yield.
- (c) Refine information to areas within these catchments that would realistically support planted production forestry based on suitability, availability and cost of land i.e. exclude areas already in dairy or land that would potentially be converted to higher producing land uses.
- (d) Further exclude areas that if planted in production forest would have little or no effects on MALF.
- (e) Once these areas have been defined then apply the model proposed by the JFS and Dr Tim Davie at the PNRRP hearings across the identified

parcels to determine any adverse effects on the MALF. Essentially a zoned mapping framework for production forest would be compiled

Officers: The planting of new areas of plantation forest within any flow-sensitive catchment listed in Sections 6-15 is a controlled ~~permitted~~ activity, provided the forest planting meets the following conditions:

1. Existing areas of exotic tall vegetation, other than plantation forest, that is greater than 2 m tall and occupies more than 80% of the canopy cover and existed at 1 November 2010 may be planted in plantation forest; and
2. The total area of land planted in plantation forest, ~~other than land planted pursuant to condition 1,~~ does not exceed 2015% of the flow sensitive catchment or subcatchment listed in Section 6-15 ~~total site area of a certificate of title that existed at 1 November 2010.~~

The Canterbury Regional Council will retain control over the following matter:

1. The provision of information on the location, density and timing of planting.

Discussion: The change in activity status is not justified, the matters for control does not involve any assessment, simply checking the provision of information. That should more appropriately be made a condition of a permitted activity. Dr Cowie considers that the below rule is best suited to smaller catchments less than 20ha in area:

The planting of new areas of plantation forest within any flow-sensitive catchment listed in Sections 6-15 is a permitted activity, provided the forest planting meets the following conditions:

1. *Existing areas of exotic tall vegetation, other than plantation forest, that is greater than 2 m tall and occupies more than 80% of the canopy cover and existed at 1 November 2010 may be planted in plantation forest; ~~and~~*
2. *The total area of land planted in plantation forest, ~~other than land planted pursuant to condition 1,~~ does not exceed 2015% of the flow sensitive catchment or subcatchment listed in Section 6-15 ~~total site area of a certificate of title that existed at 1 November 2010; and~~*
3. *Information on the location, density and timing of planting is provided to Environment Canterbury for their records.*

For larger catchments Dr Cowie suggests a move toward the Rule that was contained in the NRRP (WQN28):

The planting of new areas of plantation forest within any flow-sensitive catchment listed in Sections 6-15 is a controlled activity, provided the forest planting meets the following conditions:

1. **Existing areas of exotic tall vegetation, other than plantation forest, that is greater than 2 m tall and occupies more than 80% of the canopy cover and existed at 1 November 2010 may be planted in plantation forest; and**
2. **The total area of land planted in plantation forest, other than land planted pursuant to condition 1, will not cumulatively cause more than a five percent reduction in the seven day mean annual low flow, and/or more than a 10 percent reduction in the mean flow.**
3. **Information on the location, density and timing of planting is provided to Environment Canterbury for their records.**

Structures (Rule 5.115)

Notified: The installation, extension, use, maintenance or removal of bridges and culverts, including the erection or extension of the structure and the consequential deposition of substances on, in or under the bed of a lake or river, the excavation or other disturbance of the bed of a lake or river, and, in

the case of culverts, the associated take, discharge or diversion of water is a permitted activity, provided the following conditions are met:

...

7. For any temporary culvert:
 - (a) the maximum width of the river bed at the point of the crossing is 5 m;
 - (b) the culvert is installed at a level no higher than bed level, and no lower than 100 mm below the level of the bed of the river or lake;
 - (c) the culvert is not placed in a water body managed for flood control or drainage purposes, unless it is undertaken by or on behalf of the CRC; and
 - (d) the culvert is not in place for more than four weeks; and

Requested: 7. For any temporary culvert:
(d) the culvert is not in place for more than four weeks **shall be in place for the least practical time period not exceeding 3 months in duration**; and

Officers: No change to 7(d).

Discussion: The Officers report considers that any culvert in place for longer than 4 weeks should be subject to the same rules as permanent structures. Given the operational needs of the forestry industry and the ability to construct a temporary culvert in accordance with NZFOA Roding Standards a longer period would be appropriate.

(d) *the culvert is not in place for more than four weeks; **or***

(e) any culvert within a plantation forest shall be in place for the least practical time period not exceeding 3 months provided that the culvert is designed, constructed and used in accordance with an Erosion and Sediment Control Plan prepared in accordance with the Environmental Code of Practice for Plantation Forestry (ECOP) 2007; and

Note – new definitions of Erosion Sediment Control Plan (ESCP) and Harvest Plan to be inserted.

Vegetation in Lake and Riverbeds (Rule 5.143)

Notified: The introduction or planting of any plant, or the removal and disturbance of existing vegetation in, on or under the bed of a lake or river is a permitted activity, provided the following conditions are met:

1. The activity does not prevent access to lawfully established structures, including flood protection works, or to flood control vegetation;
2. No vegetation used for flood control or bank stabilisation is disturbed, removed, damaged or destroyed except by or on behalf of the person or agency responsible for maintaining that vegetation for flood control purposes;
3. No woody vegetation is disposed of in, on, over or under the bed of a lake or river;
4. Introduction or planting of vegetation in, on, or under the bed of any lake or river is not of a species listed in the Biosecurity NZ Register of Unwanted Organisms or the Canterbury Pest Management Strategy;
5. Introduction or planting of vegetation in, on, or under the bed of any river or lake listed as a high naturalness lake or river in Sections 6-15 is only of indigenous plant species that naturally occur in the catchment;
6. The disturbance, removal, damage or destroying of any plant or vegetation in, on, or under the bed of any river or lake listed as a high naturalness lake or river in Sections 6-15 is only of species non-indigenous species;

7. The activity does not occur in an inanga or salmon spawning site listed in Schedule 17; and
8. In a flood control rating district scheme area identified in Schedule 14, the introduction or planting of any plant, is by or on behalf of the person or agency responsible for maintaining that vegetation for flood control purposes.

- Requested:**
6. *The disturbance, removal, damage or destroying of any plant or vegetation in, on, or under the bed of any river or lake listed as a high naturalness lake or river in Sections 6-15 is only of:*
 - a) *species non-indigenous species; or*
 - b) **indigenous species that have grown up as the understorey of plantation forest that existed in the bed of a river or lake on or before August 2012, provided that this only occurs as part of harvesting a plantation forest and that a minimum 5m setback from the river or lake is provided on replanting.**

Officers: Only administrative change to remove the additional word 'species' used twice in the rule.

Discussion: Rayonier seeks the relief sought in the original submission above.

Vegetation Clearance in Riparian Areas (Rule 5.147)

Notified: The use of land for vegetation clearance outside the bed of a river or lake or adjacent to a natural wetland boundary but within:

- a. 20 m of the bed of a lake or river or a natural wetland boundary in Hill and High Country land or land zoned LH2 on the Planning Maps; or
- b. 10 m of the bed of a lake or river or a natural wetland boundary in land zoned LH1 on the Planning Maps;

is a permitted activity provided the following conditions are met:

1. The area of bare ground resulting from vegetation clearance does not exceed 10% of the area within the relevant setback distance in any site at any time, except as a result of pest-plant spraying;
2. The vegetation clearance is not on land above 900 m above sea level;
3. The felling of trees, or any part of a tree, except where to ensure human safety it is not practicable to do so, is away from any lake, river or wetland and no logs or tree trunks are dragged through or across the bed of a lake or a permanently flowing river, or a wetland;
4. The vegetation clearance does not occur within 1m of a significant spawning reach for salmon or an inanga spawning area listed in Schedule 17;
5. The vegetation is not flood or erosion control vegetation; and
6. Vegetation clearance associated with recovery activities or the establishment, maintenance or repair of network utilities and fencing is not required to meet Conditions 1 and 2.

- Requested:**
1. The area of bare ground resulting from vegetation clearance does not exceed 10% of the area within the relevant setback distance in any site at any time, except as a result of:
 - a) pest-plant spraying; **or**
 - b) **the harvesting of plantation forest, provided that a minimum 5m horizontal setback from the river or stream is maintained on replanting.**

- Officers:**
- a. 10 m ~~20 m~~⁴⁵⁷ of the bed of a lake or river or a natural wetland boundary in Hill and High Country land or land shown as High Soil Erosion Risk zoned LH2⁴⁵⁸ on the Planning Maps; or
 - b. 5 m ~~10 m~~⁴⁵⁹ of the bed of a lake or river or a natural wetland boundary in all other land not shown as High Soil Erosion Risk on the Planning Maps or defined as Hill and High Country land zoned LH1 on the Planning Maps⁴⁶⁰

Note - definition of Vegetation Clearance has been amended to:

Vegetation clearance means removal of vegetation by physical, mechanical, chemical or other means ~~except burning by fire~~⁴³⁴. but excludes:

- (a) cultivation for the establishment of crops or pasture;
- (b) clearance for the establishment or maintenance of utilities or structures;
- (c) removal of a species listed in the Biosecurity NZ Register of Unwanted Organisms or the Canterbury Pest Management Strategy;
- (d) clearance for the purposes of maintaining existing fence lines, vehicle tracks, firebreaks, drains, ponds, dams or crossings; or
- (e) domestic gardening and the maintenance of amenity planting.⁴³⁵

Discussion: The Officers report (page 406) states "It is noted that it was not the intention to require resource consent for "normal" farming or forestry activities, and the rules have been modified in the recommendations below to clarify this". Despite this statement the relief sought in the original submission has not been recommended.

It is noted that the exclusions provided in the amended definition of vegetation clearance do not include any forestry related activity.

Three options exist to advance this matter:

- a) advance relief sought in original submission above; or
- b) Seek that the exclusions listed in the definition of vegetation clearance include "clearance for the purpose of harvesting existing plantation forestry"; or
- c) Seek a new condition 7 along the lines of:

Vegetation clearance undertaken within plantation forests carried out in accordance with an Erosion and Sediment Control Plan and Harvest Plan are not required to meet Conditions 1, 2 and 3.

Earthworks in Riparian Areas (Rule 5.148)

Notified: **The use of land for earthworks or cultivation outside the bed of a river or lake or adjacent to a natural wetland boundary but within:**

- a. 20 m of the bed of a lake or river or a natural wetland boundary in Hill and High Country land and land zoned LH2 on the Planning Maps; or**
- b. 10 m of the bed of a lake or river or a natural wetland boundary in land zoned LH1 on the Planning Maps;**

is a permitted activity provided the following conditions are met:

- 1. The extent of earthworks or cultivation within the relevant setback distances in any property does not at any time exceed:
 - (a) an area of 500 m², or 10% of the area, whichever is the lesser; or
 - (b) a volume of 10 m³ on Hill and High Country land and land zoned LH2 on the Planning Maps;
- 2. Any discharge of sediment associated with the activity into the water in a river, lake, wetland or the Coastal Marine Area does not exceed 8 hours in any 24 hour period, and does not exceed 24 hours in total in any 6 month period;
- 3. Any cultivation is across the contour of the land;
- 4. Any trenches excavated for infrastructure are back-filled and compacted within 10 days of being excavated;
- 5. The activity does not occur within a significant spawning reach for salmon or an inanga spawning area listed in Schedule 17;

6. Any earthworks or cultivation is not within 5 m of any flood control structure; and
7. Earthworks associated with recovery activities or the establishment, maintenance or repair of network utilities and fencing is not required to meet Conditions 1 or 2.

Requested: That Rule 5.148 be amended so that all earthworks undertaken within plantation forests are a permitted activity provided that they are carried out in accordance with a Harvest Plan and an Erosion and Sediment Control Plan that are prepared prior to operations being undertaken.

Officers: The use of land for earthworks or cultivation outside the bed of a river or lake or adjacent to a natural wetland boundary but within:

- a. ~~10m 20 m~~⁴⁶⁴ of the bed of a lake or river or a natural wetland boundary in Hill and High Country land and land shown as High Soil Erosion Risk zoned LH2⁴⁶⁵ on the Planning Maps; or
- b. 5 m 10 m⁴⁶⁶ of the bed of a lake or river or a natural wetland boundary in all other land not shown as High Soil Erosion Risk on the Planning Maps or defined as Hill and High Country land zoned LH1 on the Planning Maps;⁴⁶⁷

is a permitted activity provided the following conditions are met:

1. The extent of earthworks or cultivation within the relevant setback distances in any property does not at any time exceed:
 - (a) an area of 500 m², or 10% of the area, whichever is the lesser; or
 - (b) a volume of 10 m³ ~~on Hill and High Country land and land zoned LH2~~⁴⁶⁸ shown as High Soil Erosion Risk on the Planning Maps;
2. Any discharge of sediment associated with the activity into the water in a river, lake, wetland or the Coastal Marine Area does not exceed 8 hours in any 24 hour period, and does not exceed 24 hours in total in any 6 month period;
3. Any cultivation is across the contour of the land;
- ~~4. Any trenches excavated for infrastructure are back filled and compacted within 10 days of being excavated;~~⁴⁶⁹
5. The activity does not occur adjacent to within⁴⁷⁰ a significant spawning reach for salmon or an inanga spawning area listed in Schedule 17;
6. Any earthworks or cultivation is not within 5 m of any flood control structure; and
7. Earthworks associated with recovery activities or the establishment, maintenance or repair of network utilities and fencing is not required to meet Conditions 1, ~~or 2~~ or 6.⁴⁷¹

Discussion: The Officers report includes the following:

- An issue arising through many of the forestry submissions, including Rayonier, is to allow earthworks in plantation forestry to qualify as a permitted activity, subject to various controls such as a harvest, erosion and sediment control plan akin to that in the Horizons One Plan.⁴⁵⁶
- It is noted that it was not the intention to require resource consent for "normal" farming or forestry activities, and the rules have been modified in the recommendations below to clarify this.

Despite the point made in the second bullet point - the recommended rules will mean that various forestry activities will still require consent.

The original relief sought is still the most practicable way of overcoming this issue and appears to align with the Officers stated intentions. So suggested wording is a new condition 8:

Earthworks undertaken within plantation forests carried out in accordance with an Erosion and Sediment Control Plan and Harvest Plan are not required to meet Conditions 1 and 2.

This relief aligns with that sought in relation to Rule 5.147 above.

Vegetation Clearance and Earthworks in Erosion-prone Areas (Rule 5.150)

Notified: Within Area LH2 of the Planning Maps and outside any riparian margin, the use of land for:

- (a) Cultivation or spraying of slopes less than 15°;
- (b) Cultivation or spraying on slopes greater than 15° provided the total area sprayed or cultivated is less than 200 m²;
- (c) Hand clearance and spot spraying of vegetation;
- (d) Silvicultural practices of release cutting, pruning or thinning to waste and harvesting by suspension systems;
- (e) Maintenance of existing firebreaks, roads and tracks and, during a fire emergency, construction of new firebreaks and tracks;
- (f) Construction of walking tracks no more than 1.5 m wide;
- (g) Maintenance of existing transport networks;
- (h) Earthworks and vegetation clearance associated with the establishment, repair or maintenance of pipelines, electricity lines, telecommunication lines and radio communication structures and fences; and
- (i) Other earthworks where:
 - (i) the volume is less than 10 m³ per site or per hectare (whichever is the greater); and
 - (ii) the maximum depth of cut or fill is less than 0.5 m;

is a permitted activity provided the following conditions are met:

1. Any cleared areas are stabilised and where it is not put to its final use shall be revegetated within 6 months from the date of the commencement of the vegetation clearance or earthworks;
2. Any cultivation is across the contour of the land;
3. When firebreaks, roads, or tracks are constructed or maintained or exotic forest harvesting is carried out, culverts and stormwater controls are installed and maintained to lead water via a channel into an existing watercourse; and
4. the concentration of total suspended solids in the discharge shall not exceed:
 - (a) 50 g/m³, where the discharge is to any Spring-fed river, Banks Peninsula river, or to a lake; or
 - (b) 100 g/m³ where the discharge is to any other river or to an artificial watercourse.

Requested: Within Area LH2 of the Planning Maps, excluding land within and outside any riparian margin, the use of land for:

- ~~(a) Cultivation or spraying of slopes less than 15°;~~
- ~~(b) Cultivation or spraying on slopes greater than 15° provided the total area sprayed or cultivated is less than 200 m²;~~
- (b) Earthworks and vegetation clearance associated with plantation forestry (including harvesting), provided it is carried out in accordance with a Harvest Plan and an Erosion and Sediment Control Plan prepared prior to operations being undertaken;

is a permitted activity provided the following conditions are met:

1. Any cleared areas are stabilised and where it is not put to its final use shall be revegetated as soon as practicable and no later than within 6 18 months from the date of the commencement of the vegetation clearance or earthworks, unless the area is left to revegetate naturally;

Officers: Within the area shown as High Soil Erosion Risk on Area LH2 of⁴⁸⁰ the Planning Maps and outside any riparian margin, the use of land for:

- a. Cultivation or spraying of slopes less than ~~15°~~ 25 degrees⁴⁸¹;
- b. Cultivation or spraying on slopes greater than ~~15°~~ 25 degrees⁴⁸²; provided the total area sprayed or cultivated is less than 200 m²;
- c. Vegetation clearance of species listed in the Biosecurity NZ Register of Unwanted Organisms or the Canterbury Pest Management Strategy;⁴⁸³
- d. Hand clearance and spot spraying of vegetation;

- e. Silvicultural practices of release cutting, pruning or thinning to waste and harvesting in accordance with the Environmental Code of Practice for Plantation Forestry (ECOP) 2007 by suspension systems;⁴⁸⁴
- f. Earthworks within a production forest undertaken in accordance with NZ Forest Road Engineering Manual (2012);⁴⁸⁵

is a permitted activity provided the following conditions are met:

- 3. When firebreaks, roads, or tracks are constructed or maintained the maximum depth of cut or fill is 0.5 m; and ~~or exotic forest harvesting is carried out, culverts and stormwater controls are installed and maintained to lead water via a channel into an existing watercourse~~⁴⁸⁷

Discussion:

The recommended officer changes meet most of the concerns raised in the original submission. However, the reference in (e) is to the Code of Practice and not the Erosion and Sediment Control Plan. The requirement that areas are replanted within 6 months is still retained. The following amendments are requested:

- e. *Silvicultural practices of release cutting, pruning or thinning to waste and harvesting in accordance with **an Erosion and Sediment Control Plan and Harvest Plan prepared in accordance with** the Environmental Code of Practice for Plantation Forestry (ECOP) 2007 ~~by suspension systems;~~⁴⁸⁴*

...

- 1. *Any cleared areas are stabilised and where it is not put to its final use shall be revegetated **as soon as practicable and no later than within 6 18** months from the date of the commencement of the vegetation clearance or earthworks, **unless the area is left to revegetate naturally or converted to another land use;***
- 4. *the concentration of total suspended solids in the discharge shall not exceed:*
 - (a) *50 g/m³, where the discharge is to any Spring-fed river, Banks Peninsula river, or to a lake; or*
 - (b) *100 g/m³ where the discharge is to any other river or to an artificial watercourse.*

Unless the discharge results from plantation forestry activity, and

- (a) **The activity is undertaken in accordance with an Erosion and Sediment Control Plan and Harvest Plan which must be submitted to the Regional Council upon request.**
- (b) **For a discharge of stormwater to surface water the discharge does not, after reasonable mixing, breach the water clarity standards in Schedule 5 when flows in the receiving waters are below the median.**

Hazardous Substances (Rule 5.162)

Notified:

The use of land for the storage in a portable container and use of a hazardous substance listed in Part A of Schedule 4 is a permitted activity provided the following conditions are met:

- 1. The aggregate quantity of specified hazardous substances stored on a site in one or more portable containers does not exceed 2,000 litres;
- 2. The container(s) are located in an area, or a structure, that will contain a leak or spill of the substance and will allow the spilled substance to be collected;
- 3. Equipment that is suitable to absorb any leak or spill of the substance (a "spill kit") is located with the container(s) at all times, along with instructions on how to use the spill kit;
- 4. The container(s) are not located within
 - (a) 20 m of a surface water body or a bore;

- (b) a group or community drinking water supply protection area as set out in Schedule 1; and
5. The container(s) do not remain on a site for more than 90 days in any consecutive 12 month period.

Requested: ~~1. The aggregate quantity of specified hazardous substances stored on a site in one or more portable containers does not exceed 2,000 litres;~~

1. Storage and management of hazardous substances shall be in general accordance with HSNO regulations

- ~~5. The container(s) do not remain on a site for more than 90 days in any consecutive 12 month period.~~

Officers: 1. The aggregate quantity of specified hazardous substances stored on a site in one or more portable containers does not exceed ~~2,000~~ 5,000⁵¹⁸ litres;

Note: That as a consequential amendment the following definition of portable container be added into Section 2.10 of the pLWRP:

Portable container means one or more containers of petrol, kerosene or diesel used for refuelling and the container(s) is fixed to a vehicle, towed by a vehicle or transported by helicopter, but does not comprise part of the inbuilt fuel system required to power a vehicle or machine.⁵¹⁹

Discussion: The change from 2000L to 5000L is supported. The relief sought in terms of the duration the container can be on site is still sought:

1. *The aggregate quantity of specified hazardous substances stored on a site in one or more portable containers does not exceed ~~2,000~~ 5,000⁵¹⁸ litres;*

2. Storage and management of hazardous substances shall be in general accordance with HSNO regulations

- ~~5. The container(s) do not remain on a site for more than 90 days in any consecutive 12 month period.~~

DEFINITIONS

Culvert:

Notified: None included

Requested: Channel or conduit carrying water across or under a road

Officers: Definition not required based on plain and ordinary meaning.

Discussion: There are various examples where definitions contained in Plans do nothing more than restate the plain and ordinary meaning of words. They are included for completeness and to provide certainty. I see no issue with including a definition of culvert given that they are specifically referred to in rules.

Disturbed Land:

Notified: ***Disturbed land*** means the disturbance of soil by any means, including blading, blasting, contouring, ripping, root-raking, moving, removing, excavating, and cutting. Soil disturbance excludes: disturbance as a result of vegetation disturbance activity, non-motorised soil disturbance activities, thrusting, boring or trenching or mole ploughing associated with cable or pipe laying, soil disturbance undertaken by a mine or quarry operation, cultivation and grazing, and foundation works for structures.

Requested: Definition be deleted.

Officers: Recommend deletion.

Discussion: Support the Officers recommendation.

Ecosystem Services:

Notified: **Ecosystem services** means the physical functioning of a fresh water body that enables ecosystems, including people and communities to exist, and includes such things as flow variability, floodways, ponding and peak flow buffering.

Requested: Definition that was not limited to freshwater bodies.

Officers: **Ecosystem services** means the physical functioning of a fresh water body that enables ecosystems, including people and communities to exist, and includes such things as flow variability, floodways, ponding and peak flow buffering and includes the goods and services provided by healthy ecosystems, including medicinal plants, clean water and air, and protection from extreme natural events.⁹³

Discussion: The recommended changes do not address the fundamental issue raised in the submission. The first part of the definition recommended should be deleted so as to align with the IUCN definition as discussed in the Officers Report.

~~**Ecosystem services means the physical functioning of a fresh water body that enables ecosystems, including people and communities to exist, and includes such things as flow variability, floodways, ponding and peak flow buffering and**~~ includes the goods and services provided by healthy ecosystems, including medicinal plants, clean water and air, and protection from extreme natural events.

Erosions and Sediment Control Plan:

Notified: None included.

Requested: Means an operational plan for forestry activities prepared to manage the effects of erosion and sediment generation when undertaking earthworks and compiled with regard to industry good practice and recognised guidelines.

Officers: Not considered

Discussion: The following definition is requested, similar to that adopted in the Horizons One Plan:

Erosion and Sediment Control Plan means a plan prepared in accordance with the "Environmental Code of Practice for Plantation Forestry (2007)" and having regard to the "New Zealand Forest Road Engineering Manual (2012)", the "New Zealand Road Engineering Manual – Operators Guide (2012)" and the "Erosion and Sediment Control Guideline 2007" prepared by Environment Canterbury:

In all cases the Erosion and Sediment Control Plan shall include, but not be limited to:

- (i) The description of the nature, scale, timing and duration of activities including construction, roading, the formation of any new track, earthworks, stabilisation and harvesting,
- (ii) The erosion and sediment control measures to be employed and indicative locations,
- (iii) Water run off controls,
- (iv) Methods to avoid the slumping of batters, cuts and side castings,
- (v) Measures to maintain slope stability,
- (vi) Methods of sediment retention and control of sediment run off,
- (vii) Methods to avoid effects on riparian margins and water bodies,
- (viii) Re-vegetation requirements,
- (ix) Detail heavy rainfall response and contingency measures,
- (x) Identify maintenance and monitoring procedures,
- (xi) Identify procedures for review and amendment to the Erosion and Sediment Control Plan, and
- (xii) Relevant Harvest Plans (including maps and associated text).

Harvest Plan:

- Notified: None included
- Requested: Means an operational plan for forestry activities prepared to manage harvesting activities and compiled with regard to industry good practice and recognised guidelines.
- Officers: Not considered.
- Discussion: The following definition is requested, similar to that adopted in the Horizons One Plan:

Harvest Plan means a plantation forest Harvest Plan prepared in accordance with the "Environmental Code of Practice for Plantation Forestry (2007)" and having regard to the "New Zealand Forest Road Engineering Manual (2012)", the "New Zealand Road Engineering Manual – Operators Guide (2012)" and the "Erosion and Sediment Control Guideline 2007" prepared by Environment Canterbury. Any Harvest Plan must include a Harvest Plan Map and associated text. The Harvest Plan Map must be produced at between 1:5,000 up to 1:10,000 scale and must include, but not be limited to, the following:

- (i) Title, date and north arrow,
- (ii) The harvest area boundary,
- (iii) Any property boundaries in the vicinity of the harvest area,
- (iv) Contours,
- (v) Location of all proposed and existing roads, tracks, landings, firebreaks, stream crossings and associated culverts,
- (vi) Harvesting methodology (hauler or ground-base) and proposed extraction directions,
- (vii) Location of any water bodies, perennial streams and the bed of any lake,
- (viii) Location of any wetland identified in Schedules 9 and 10,
- (ix) Location of any known historic heritage or waahi tapu sites, outstanding natural features and landscapes, areas of significant indigenous vegetation and habitats of significant indigenous fauna identified in any district or regional plan,
- (x) Location of slash management and disposal areas for hauler landings,
- (xi) Location of end haul disposal areas, and
- (xii) Any other area relevant to managing the harvest area.

Hill and High Country:

- Notified: "means all land above 600 m altitude or greater than 20° degrees in slope".
- Requested: The original submission sought amendment to the definition to achieve a consistent linkage to the map volumes and in particular the Soil Erosion Risk Mapping, being 'Hill Country' slopes >20 degrees and High Country Slopes > 25 degrees (or as amended by map changes).
- Officers: The Officers stated that the submission by Rayonier was not entirely clear and may wish to be further detailed at the hearing. Further they noted that hill and high country is not included in the map volumes and is addressed consistently by way of definition. A change to fix the typographical error was recommended.
- Discussion: The Officers have recommended changes to the slope angles used for the Soil Erosion Risk Mapping. It is considered that it would avoid any potential ambiguity and confusion if the definitions of these terms aligned with those changes introduced by the section 42A report (or any further amendments made).

Non-point Discharge:

- Notified: "Non-point discharge means run-off or leachate from land onto or into land, a water body or the sea".

Requested: Contamination sources which are diffuse and do not have a single point of origin or are not introduced into the receiving environment from a specific outlet.

Officers: *Non point source¹⁰⁶ discharge means run off or leachate from land onto or into land, a water body or the sea.*

Discussion: Support the Officers recommendation.

Plantation Forest:

Notified: *"**Plantation forest** includes all areas of trees grown for harvest or as a carbon sink forest with a density of 150 or more stems per hectare."*

Requested: *"A forest of selected species of trees that are specifically planted and managed for a carbon sink or planted and managed specifically for harvesting and production of timber or other wood based products, and includes under-storey that has established beneath the canopy and areas that are demonstrated to be failed plantings from the previous rotations."*

Officers: Support the Officers recommendation.

Reasonable Mixing Zone:

Notified: Included reference to Schedule 8.

Requested: Reference is to schedule 8 – actual reference is schedule 5

Officers: Reasonable mixing means the mixing that occurs in a mixing zone as defined in Schedule 5 of this plan".

Discussion: Support the Officers recommendation.

Relevant PLWRP Objectives and Policies

Objectives:

- 3.23 *All activities operate at "good practice" or better to protect the region's fresh water resources from quality and quantity degradation.*

Policies:

- 4.15 *The discharge of sediment and other contaminants to surface water from earthworks, including roading, works in the bed of a river or lake, land development or construction, is avoided, and if this is not achievable, the best practicable option is used to minimise the discharge to water.*
- 4.17 *On erosion-prone land, any medium and large-scale earthworks, harvesting of forestry or other clearance of vegetation is undertaken in a manner which minimises the exposure of soil to erosion, controls sediment run-off and re-establishes vegetation cover as quickly as possible.*
- 4.19 *Sedimentation of waterbodies as a result of land clearance, earthworks and cultivation is prevented by maintaining continuous vegetation cover adjacent to waterbodies, or capturing surface run-off to remove sediment and other contaminants.*
- 4.22 *Activities involving the use, storage or discharge of hazardous substances will be undertaken using best practicable measures to:*
- (a) *as a first priority, avoid the discharge (including accidental spillage) of hazardous substances onto land or into water, including reticulated stormwater systems; and*
 - (b) *as a second priority, to ensure, where there is a residual risk of a discharge of hazardous substances including any accidental spillage, it is contained on-site and does not enter surface water bodies, groundwater or stormwater systems.*
- 4.64 *Reduced effects arising from the interception of rainfall run-off on surface water flows in the flow sensitive catchments listed in Sections 6-15 is achieved by controlling the area, density and species of trees planted, except where treeplanting is required to control deep-seated soil erosion.*
- 4.79 *Any take, use, damming or diversion of water, any discharge of contaminants onto land or into water, or any earthworks, structures, planting, vegetation removal or other land uses within a natural wetland boundary, do not adversely affect the significant indigenous biodiversity values of natural wetlands, hāpua, coastal lakes and lagoons, except for:*
- (a) *a temporary and minor adverse effect where that activity is part of installing or maintaining infrastructure, pest management, or habitat restoration or enhancement work; or*
 - (b) *the artificial opening of hāpua, coastal lakes or lagoons to assist in fish migration or achieving other conservation outcomes, customary uses, or to avoid land inundation.*
- 4.84 *Earthworks and structures in the beds or margins of lakes, rivers, natural wetlands, hāpua, coastal lakes and, lagoons:*
- (a) *maintain the character and variable channel characteristics of braided rivers;*
 - (b) *protect sites and areas of significant indigenous biodiversity values or of cultural significance to Ngāi Tahu; and*
 - (c) *do not preclude any existing lawful access to the bed of the lake, river, natural wetland hāpua, coastal lake, or lagoon for recreational, customary use, or flood control purposes.*